NAME

Module 8   Writing Linear Equations of
Two Variables
Lesson 3   Writing Equations of Lines, Given a
Point and the Slope or Two Points

additional
practice

Write the equation in slope-intercept form of the line that passes through the given point with the given slope.

1. Passes through: (1, 4)   Slope: $\frac{4}{3}$

$y = \frac{4}{3}x + \frac{8}{3}$

2. Passes through: (–2, 4)   Slope: $-\frac{1}{4}$

$y = -\frac{1}{4}x + \frac{7}{2}$

3. Passes through: (5, –1)   Slope: –2

$y = -2x + 9$

4. Passes through: (2, 1)   Slope: $\frac{2}{5}$

$y = \frac{2}{5}x + \frac{1}{5}$

5. Passes through: (4, 4)   Slope: $\frac{2}{3}$

$y = \frac{2}{3}x + \frac{4}{3}$

6. Passes through: (0, –3)   Slope: undefined

$x = 0$

7. Passes through: (–4, –5)   Slope: $-\frac{3}{8}$

$y = -\frac{3}{8}x - \frac{13}{2}$

8. Passes through: (6, 1)   Slope: 0

$y = 1$

Write the equation in slope-intercept form of the line that passes through the given points.

9. (5, 3) and (3, –4)

$y = \frac{7}{2}x - \frac{29}{2}$

10. (10, 1) and (–2, –2)

$y = \frac{1}{4}x - \frac{3}{2}$

11. (7, –2) and (1, 6)

$y = -\frac{4}{3}x + \frac{22}{3}$

12. (–4, –1) and (2, 0)

$y = \frac{1}{6}x - \frac{1}{3}$

13. (–4, 2) and (0, –2)

$y = -x - 2$

14. (1, 9) and (–3, 4)

$y = \frac{5}{4}x + \frac{31}{4}$

Write the slope-intercept form of the equation of the line described.

15. Parallel to the line $y = -\frac{1}{2}x + 4$ and passes
through the point (4, 5).

$y = -\frac{1}{2}x + 7$

16. Perpendicular to the line $y = -3x - 2$ and
passes through the point (–1, –3).

$y = \frac{1}{3}x - \frac{8}{3}$

17. Perpendicular to line containing the points (6, 2)
and (–5, 1) and passes through the point (–1, 6).

$y = -11x - 5$

18. Parallel to line containing the points (–4, 6) and
(3, –7) and passes through the origin.

$y = -\frac{13}{7}x$

© 2003 BestQuest

monotype composition
410-467-3300